

COOLING SYSTEM AND METHOD EMPLOYING MULTIPLE DEDICATED COOLANT CONDITIONING UNITS FOR COOLING MULTIPLE ELECTRONICS SUBSYSTEMS

Abstract of the Disclosure

A cooling system is provided employing multiple coolant conditioning units (CCUs). Each CCU, which is coupled to a different, associated electronics rack of multiple electronics racks to be cooled, includes a heat exchanger, a first cooling loop with a control valve, and a second cooling loop. The first cooling loop receives chilled facility coolant from a source and passes at least a portion thereof via the control valve through the heat exchanger. The second cooling loop provides cooled system coolant to the associated electronics rack, and expels heat in the heat exchanger from the electronics rack to the chilled facility coolant in the first cooling loop. The control valve allows regulation of the facility coolant flow through the heat exchanger, thereby allowing independent control of temperature of the system coolant in the second cooling loop. Various CCU and associated component redundancies of the cooling system are also provided.